Number of biogas plants

*17. SHRI SURESH PACHOURI; WW the Minister of ENERGY be pleased to state:

(a) what is the total number of biogas plants installed and in operation in each State and Union Territory since their inception;

(b) whether any major improvements in design and technology have been effected during the last five years; and

(c) what is the equivalent of fuel-wood saved annually due to these biogas plants and what are the Government's plans for increasing the present number, especially large community plants for villages which also offer a considerable employment potential?

THE MINISTER OF ENERGY (SHRI VASANT SATHE); (a) About 8.4 lakh family based biogas plants have been set up till end March, 1987, out of which 7.3' lakh biogas plants have been set up under the National Project for Biogas Development (NPBD) during 1981-82 to 1986-87. Besides, 264 community and institutional biogas plants have been set up under a separate scheme since 1979. State-wise details are given in Statements-I and II (See below).

Evaluation survey study of family based biogas plants conducted in 1983/1984 ,by five independent agencies indicated that on an all-India average basis 84 percent of the plants installed were in operation at a given time. Up-to-date State-wise surveys are being conducted.

(b) Research and Development work is in progress with the objective of improving the efficiency of existing biogas systems and develop processes and plant designs using alternate feed materials like water hyacinth, night-soil, industrial effluents, etc. As a result, during the last three years, new plant designs have been developed using alternate materials of construction like angle iron and plastic frame for digester, fibre, glass reinforced plastic, ferro-cement, etc. The old designs have been further optimised with respect to cost and efficiency and new models have been developed which are comparatively cheaper. Thus, five new and cheaper models have already been adopted for extension under National Project for Bio-gas Development (NPBD). Pilot plants have also been developed and ar_e under field trials to work on alternate feed materials like water hyacinth, industrial effluents, night-soil, etc. More efficient biological processes are also under investigation.

(c) Biogas plants installed so far are estimated to be already saving about 30 lakh tonnes of fuelwood equivalent annually valued at more than Rs. 120 crores per year. In addition, they are producing enriched fertiliser valued at Rs. 119 crores per year.

A target of setting up of 1.20 lakh plants have been fixed under NPBD for 1987-88 within the budget allocation for the project. The NPBD provides for training, central subsidy, turn-key job fee, repair charges, field demonstrations on utility of manure, promotion of biogas plants linked with sanitary latrines and new models, Regional Biogas Development and Training Centres, etc. Under the programme of setting up of community and institutional biogas plants. 250 more plants have been sanctioned. Larger number of plants can be installed if more funds are allocated.

Statement-I

State-wise number of (family type) biogas plants set tip during 1974-75 *to* 1986-87

S. No.	State/U.T.	No. of plants set up in defferent years		
		1974-75 to 1980-81	1981-82 to 1986-87	Total upto 31-3-1987
1	Andhra Pradesh	2854	67963	70817
2	Assam	75	2627	2702
3	Bihar	9826	39134	48960
4	Gujarat	9185	50719	59904
5	Haryana	10277	12599	22876
6	Himachal Pradesh	...	9030	9030
7	Karnataka	7799	39255	47054
8	Kerala	1587	13661	15248
9	Madhya Pradesh	3652	25166	28818
10	Maharashtra	11933	206237	218170
11	Orissa	622	15742	16374
12	Punjab	5612	9254	14866
13	Rajasthan	409	23543	23952
14	Tamil Nadu	6565	72853	79418
15	Uttar Pradesh	27883	128794	156577
16	West Bengal	2413	15693	18106
17	Others	512	2705	3226
	TOTAL	101213	73?035	836?98

Statement-II

State-wise list of completed community and Institutional Biogas Plants during 1979-80 *to* 1986-87

S.No.	State	Community Plants	Institutional Plants	Total
1	Andhra Pradesh	21	24	45
2	Assam	..	1	1
3	Bihar	6	..	6
4	Delhi	1	..	1
5	Gujarat	16	6	22
6	Haryana	2	4	6
7	Himachal Pradesh	..	1	1
8	Karnataka	2	..	2
9	Kerala	..	2	2
10	Madhya Pradesh	17	17	34
11	Maharashtra	2	26	28
12	Orissa	4	3	7
13	Pondicherry	..	1	1
14	Punjab	28	4	32
15	Rajasthan	5	17	22
16	Tamil Nadu	2	2	4
17	Uttar Pradesh	32	16	48
18	West Bengal	2	..	2
	GRAND TOTAL	140	124	264